

Current Status of Claims

1. (*original*) A device for use with conveyor means and a detector station, said conveyor means for moving empty beverage containers, suitably bottles of different shapes and sizes, past the detector station, and said detector station for providing characteristic data about the containers, and means which based on such data are capable of determining how the containers are to be handled subsequent to detection,
 - wherein said device at a downstream end of said conveyor means defines a bottle raiser capable of guiding transported bottles into a standing rest position bottom first, and
 - 10 - wherein said raiser includes a bottle stabilizer which on basis of said bottle data is held by means of a motor in a first position in contact freedom with a bottle as a function of data regarding the bottle, such as at least one of its diameter, height and weight, said stabilizer then movable to a second position for in a stabilizing step bearing against a portion of the bottle and for pushing
 - 15 the bottle against a stationary back wall, and releasing said bottle from the stabilizing step for onward movement on a further conveyor.

2. (*original*) A device according to claim 1, wherein a guide duct or shaft is provided for guiding said bottle with its bottom first in direction of travel down to said standing rest position at a rest.

3. (*original*) A device according to claim 1, wherein a bottle ejector is provided, said ejector being movable out of said back wall in order to push the container in standing posture onto said further conveyor in standing posture thereon.

Current Status of Claims (cont'd)

4. (*previously presented*) A device according to claim 1, wherein said stabilizer and said ejector are made as common rotatable unit, said unit having at least one vertical wing secured to a vertical spindle, and which on rotational movement in one direction is rotatable in towards the container for stabilisation thereof against said back wall, and on rotation in an opposite direction is movable out through said back wall for ejection of the bottle.
5. (*original*) A device according to claim 4, wherein at least a lower portion of the wing has mutually spaced fingers, and wherein said back wall has fingers mutually so spaced that fingers of the wing can pass in respective spaces between fingers of the back wall.
6. (*previously presented*) A device according to claim 4, wherein the wing as seen in horizontal section is slightly curved.
7. (*previously presented*) A device according to claim 1, wherein the rotatable unit has three wings with the same angular separation.

Current Status of Claims (cont'd)

8. (original) A method for use with conveyor means and a detector station, said conveyor means for moving empty beverage containers, 5 suitably bottles of different shapes and sizes, past the detector station, which provides for characteristic data about the containers, and based on such data determining how the containers are to be handled subsequent to detection, comprising the steps of:

- at a downstream end of said conveyor means guiding a transported bottle down 10 into a standing rest position bottom first,
- stabilizing the bottle based on said bottle data by using a motor operated stabilizer held in a first position in contact freedom with the bottle as a function of said bottle data, such as at least one of its diameter, height and weight,
- moving said stabilizer to a second position for in a stabilizing step bearing 15 against a portion of the bottle and for pushing the bottle against a stationary back wall, and
- releasing said bottle from the stabilizing step for onward movement on a further conveyor.

9. (original) A method according to claim 8, wherein said bottle is moved along a curved path for guiding said bottle with its bottom first in direction of travel down to a standing posture at said rest position.

10. (previously presented) A method according to claim 8, wherein said bottle is pushed by an ejector out from said rest position, said ejector being movable out of said back wall, and wherein the bottle is pushed in standing position onto said further conveyor.

Current Status of Claims (cont'd)

11. (*previously presented*) A method according to claim 8, wherein said stabilizer and said ejector operate as a common rotatable unit, which on 5 rotational movement in one direction rotates in towards the container for stabilization thereof against said back wall, and on rotation in an opposite direction moves out through said back wall for ejection of the bottle.

12. (*new*) A device for raising an empty beverage container received from a reverse vending machine in a lying position and with its bottom first, the device comprising

5 - a guide for guiding the container into a rest position where the container stands upright on its bottom,

- a motor operated stabilizer, which can assume a first position, in which the stabilizer is held in contact freedom with the container to allow the container to assume its rest position, and release the container for onward movement on a 10 conveyor,

wherein the first position of the stabilizer is dependent on data about the container provided by a detector station of said reverse vending machine, and that the stabilizer can assume a second position, in which the stabilizer bears against the container and pushes the container against a stationary back wall of 15 the device to stabilize the container in its rest position before the container is released.

13. (*new*) A device according to claim 12, wherein the guide is provided for guiding the container with its bottom first in the direction of travel down to a standing posture at the rest position.

Current Status of Claims (cont'd)

14. (new) A device according to claim 12, wherein a container ejector is provided, the ejector being movable out of the wall to push the container in standing posture onto the conveyor in standing posture thereon.

15. (new) A device according to claim 14, wherein the stabilizer and the ejector are made as common rotatable unit, the unit having at least one vertical wing secured to a vertical spindle and which on rotational movement in one direction is rotatable towards the container for stabilizing the container against the wall, and on rotation in the opposite direction is movable out through the wall to eject the container.

16. (new) A device according to claim 15, wherein at least a lower portion of the wing has mutually spaced fingers, and wherein the wall has fingers mutually so spaced that fingers of the wing can pass in respective spaces between fingers of the wall.

17. (new) A device according to claim 15 wherein the wing as seen in horizontal section is slightly curved.

18. (new) A device according to claim 15 wherein the rotatable unit has three wings with uniform angular separation.

Current Status of Claims (cont'd)

19. (new) A device according to claim 12 wherein it is installed in said return vending machine having a conveyor for transporting the container in a lying position with its bottom first from an upstream end of the conveyor past a detector for detecting the data about the container and to a downstream end, where the device is arranged to receive the container at the downstream end of the conveyor.

20. (new) A method for raising an empty beverage container, the method comprising

- receiving the container from a reverse vending machine in a lying position and with its bottom first,

5 - guiding the container into a rest position where the container stands upright on its bottom,

- stabilizing the container in its rest position using a motor operated stabilizer, comprising moving the stabilizer to a first position in which the stabilizer is held in contact freedom with the container to allow the container to assume its rest

10 position, and

- releasing the container for onward movement on a conveyor,

wherein the first position of the stabilizer is dependent on data about the container provided by a detector station of said reverse vending machine, and wherein the stabilizer is moved to a second position, in which it bears against the

15 container and pushes the container against a stationary back wall to stabilize the container in its rest position before releasing the container.

21. (new) A method according to claim 20, wherein the container is moved along a curved path for guiding the container with its bottom first in direction of travel down to a standing posture at the rest position.

Current Status of Claims (cont'd)

22. (new) A method according to claim 20 wherein the container is pushed by an ejector out from the rest position, the ejector being movable out of the wall, and wherein the container is pushed in standing posture onto the conveyor.

23. (new) A method according to claim 22, wherein the stabilizer and the ejector operate as a common rotatable unit, which on rotational movement in one direction rotates in towards the container for stabilizing the container against the wall, and on rotation in the opposite direction moves out through the wall to eject the container.